Operators Manual

Installation, Operation & Service

Skillets

OPEN BASE & MODULAR ELECTRIC SKILLETS -

MODELS:

SEL-30-TR SEM-30-TR

SEL-40-TR SEM-40-TR

BULLET FOOT (FRONT) 078160-1
FLANGED FOOT (BACK) 078161-1

Cleveland

Enodis

1333 East 179th St., Cleveland, Ohio, U.S.A. 44110

Phone: (216) 481-4900 Fax: (216) 481-3782

Visit our web site at www.clevelandrange.com

SE95032 Rev. 5

FOR THE USER

WARNING:

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death.

Read the Installation and Operating instructions thoroughly before installing or servicing this equipment.

IMPORTANT

THE INSTALLATION AND CONNECTION MUST COMPLY WITH THE LOCAL AND NATIONAL ELECTRICAL CODES.

ENSURE ELECTRICAL SUPPLY CONFORMS WITH ELECTRICAL CHARACTERISTICS SHOWN ON THE RATING LABEL

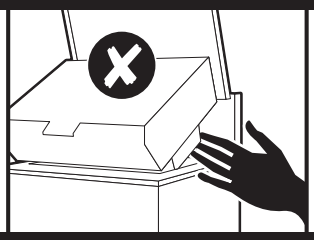
ALL SERVICE MUST BE PERFORMED BY A QUALIFIED CLEVELAND RANGE TECHNICIAN.

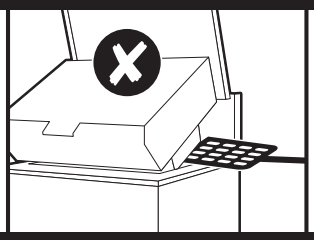
RETAIN THIS MANUAL FOR YOUR REFERENCE.

For your safety

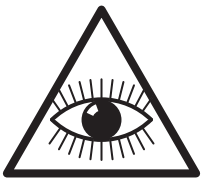
DANGER

Keep hands and utensils away from moving parts and pinch points.

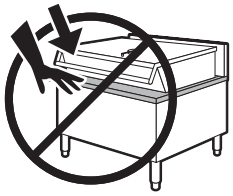




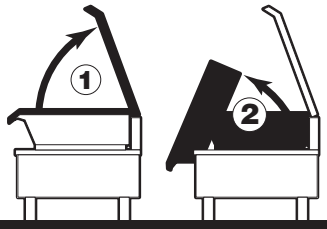
IMPORTANT



Inspect unit daily for proper operation.

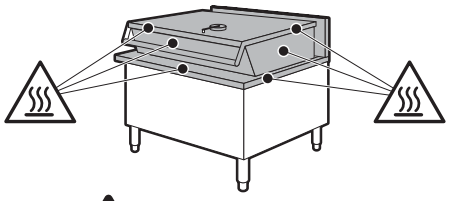


Do not lean on or place objects on skillet lip.



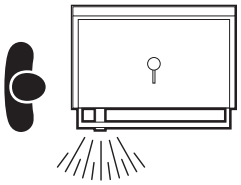
Lift lid before tilting skillet.

CAUTION



Wear protective equipment when discharging hot product.

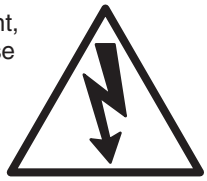
Surfaces may be extremely hot! Use protective equipment.



Stand clear of product discharge path when discharging hot product.

SERVICING

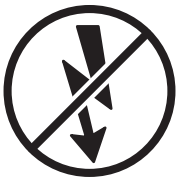
WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.



Shut off power at main fuse disconnect prior to servicing.

Ensure skillet is at room temperature prior to servicing.

GAS APPLIANCES



Do not attempt to operate this appliance during a power failure.

Keep appliance and area free and clear of combustibles.

INSTALLATION

GENERAL

Installation of the unit must be accomplished by qualified electrical installation personnel working to all applicable local and national codes. Improper installation of product could cause injury or damage.

This equipment is built to comply with applicable standards for manufacturers. Included among those approval agencies are: UL, NSF, ASME/Ntl. Bd., CSA, CGA, ETL, and others. Many local codes exist, and it is the responsibility of the owner/installer to comply with these codes.

Note: Maximum voltage for LVD (low volt directive for Europe) to be 440 volts for CE marked appliances.

INSPECTION / UNPACKING

Note: The electrical rating label is located on the frame stiffener (right side) behind the front panel. For easy access, remove the two screws securing the upper front panel and hinge the lower front panel downwards. Serial number, voltage, phase, amperage and wattage are stated on this label.

1. Before unpacking visually inspect the unit for evidence of damage during shipping.
2. If damage is noticed, do not unpack the unit, follow "SHIPPING DAMAGE INSTRUCTIONS".
3. Carefully remove unit from shipping carton. Remove any packing material from unit. After carefully unpacking check for "concealed" damage. If damage is noticed, follow "SHIPPING DAMAGE INSTRUCTIONS".
4. Check the electrical rating label to ensure that the unit is the correct voltage, phase, amperage and wattage.
5. A protective material has been applied to the stainless steel panels. This material must be removed immediately after installation, as heat will melt the material and make it more difficult to remove.

SHIPPING DAMAGE INSTRUCTIONS

If shipping damage to the unit is discovered or suspected, observe the following guidelines in preparing a shipping damage claim.

1. Write down a description of the damage or the reason for suspecting damage as soon as it is discovered. This will help in filling out the claim forms later.
2. As soon as damage is discovered or suspected, notify the carrier that delivered the shipment.
3. Arrange for the carrier's representative to examine the damage.
4. Fill out all carrier claims forms and have the examining carrier sign and date each form.

CLEARANCE REQUIREMENTS

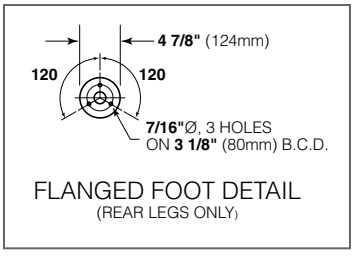
This unit must be installed in accordance with the clearances shown on the rating label which is adhered to the unit.

FOR YOUR SAFETY. Keep the appliance area free and clear of combustible materials.

INSTALLATION

Note: For clearance requirements, suggested drain location and assembly details refer to Specification Sheet.

1. Position the unit in it's permanent location, and level the unit by turning the adjustable feet.
2. Once positioned and leveled, permanently secure the unit's rear flanged feet to the floor using 5/16" lag bolts and floor anchors (supplied by the installer). Three bolts are required to secure each of the flanged feet.



FLANGED FOOT DETAIL
(REAR LEGS ONLY)

3. Seal joints of flanged feet with a silicone sealant.

WIRE CONNECTION

Note: Ensure main power is turned off before connecting wires.

General Information

Install in accordance with local codes and/or the National Electric Code ANSI/NFPA No. 70-1990 (USA) or the Canadian Electric Code CSA Standard C22.1 (Canada). A separate fused disconnect switch must be supplied and installed. The unit must be electrically grounded by the installer.

The electrical supply must match the power requirements specified on the unit's rating label. The copper wiring must be adequate to carry the required current at the rated voltage. Wire must be suitable for at least 194°F (90°C). Refer to Specification Sheet for all electrical specifications. Cleveland strongly recommends the use of liquid tight fittings.

Connection

NOTE: The supply lines will enter throght the rear (or bottom) of the unit near the left side of the skillet and are connected to the terminal block. For ease in attaching the supply lines there is a removable cover on the wiring compartment.

ENSURE THE ELECTRICAL SUPPLY MATCHES THE UNIT'S REQUIREMENTS AS STATED ON THE ELECTRICAL RATING LABEL.

NOTE: This skillet is factory wired for a 3 phase installation. If single phase is required, check the wiring diagram for proper modifications. The wiring diagram is located on the back of the hinged front panel.

WATER CONNECTION

(OPTIONAL)

A 1/2" NPT cold water line and/or a 1/2" NPT hot water line are required if unit is equipped with a single or double pantry faucet.

INSTALLATION CHECKS

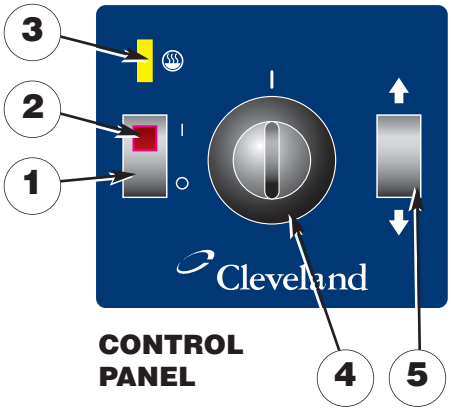
Although the unit has been thoroughly tested before leaving the factory, the installer is responsible for ensuring the proper operation of unit once installed.

1. Supply power to the unit by placing the fused disconnect switch to the "ON" position.
2. Turn Temperature Dial to 150°F (66°C).
3. Toggle Power Switch to the "ON" position.
4. Heat Indicator Light (yellow) should be ON and unit heating. When temperature is reached, Yellow Indicator Light will switch OFF.
7. Turn Temperature Dial to 300°F (150°C). Unit will continue to heat, Heat Indicator Light (yellow) will remain ON until temperature is reached. Then the heat indicator light will cycle off indicating the heating system has shut OFF. The heat indicator light will continue to cycle ON and OFF as the heating system cycles ON and OFF maintaining the desired temperature.
3. Toggle Power Switch to the "OFF" position.

CLEANING

After installation the unit must be thoroughly cleaned and sanitized prior to cooking. See “CLEANING INSTRUCTIONS” in this manual for complete cleaning instructions.

OPERATING INSTRUCTIONS



CONTROL PANEL

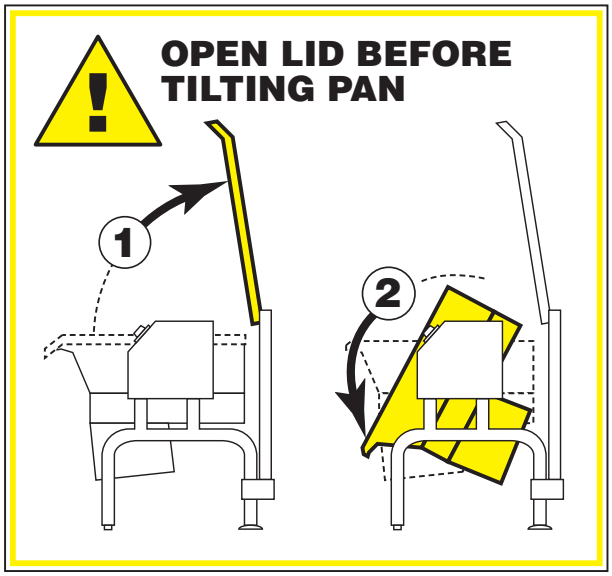
ITEM #	DESCRIPTION	FUNCTION
1.	On-Off Switch	Main power switch for unit.
2.	Power Indicator Light (Red)	Indicates power is on.
3.	Heat Indicator Light (Yellow)	Turns ON when system is calling for heat and OFF when system is satisfied.
4.	Temperature Dial	Regulates the surface temperature of the pan.
5.	Power Tilt Switch	Used for tilting the pan up or down. Some models have a Hand Tilt Wheel.
6.	Manual Tilt Override	Used on units with Power Tilt for tilting the pan up or down in case of power or mechanical failure.
9.	Tangent Draw-Off Valve (not shown)	Option - Used for draining product or wash water from kettle.
10.	Faucet (not shown)	Option - hot and/or cold faucet mounts to skillet for convenient filling of the pan.

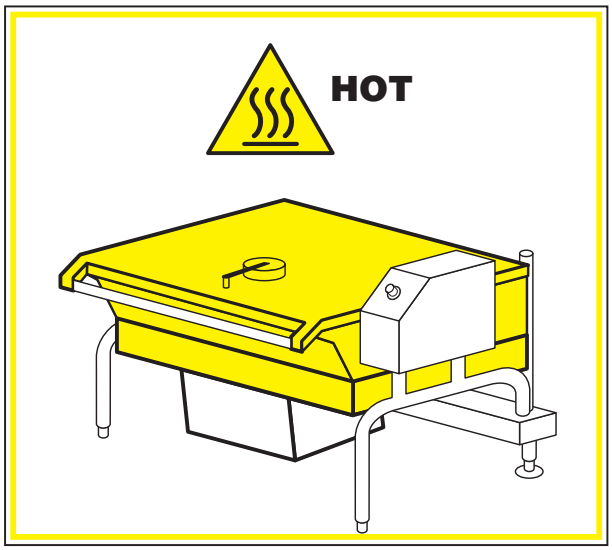
OPERATING THE UNIT

1. Ensure electrical supply to the unit is in the ON position.
2. Turn Power Switch to the ON position. The yellow Heat Indicator Light will indicate power is on.
3. **MANUAL TILT:** Cleveland skillets are equipped with a manual tilt mechanism for raising and lowering the pan. To raise pan, raise the cover and turn the crank clockwise. To lower pan, turn counterclockwise.

   POWER TILT: Cleveland skillets can also be equipped with an optional electric power tilt mechanism for raising and lowering the pan. To raise pan, raise the cover and press up on the tilt switch. To lower pan, press down on the tilt switch.
4. **FOR YOUR SAFETY:** This skillet is also equipped with a power interrupter which automatically shuts of the power to the elements whenever the skillet is raised more than 1/2" (13mm).

   IMPORTANT: Before commencing to cook, ensure pan is in the lowered position by pressing down on the tilt switch. Ensure cover is raised first.
5. To preheat, set Temperature Dial to desired cooking temperature.
6. Allow skillet to preheat for approximately 15-30 minutes.
7. Once preheated, insert product in skillet and adjust Temperature Dial to required cooking temperature.
8. If desired, once product has cooked, it can be held prior to serving at a lower temperature setting.
9. When cooking is completed, set Temperature Dial and Power Switch to the OFF position.
10. The best time to clean the skillet is immediately after use, once skillet has cooled down. Refer to section titled "CLEANING INSTRUCTIONS" for details.





OPERATING SUGGESTION

1. Turn power switch to the "OFF" position when skillet is not in use.
2. Allow skillet to preheat before adding product.
3. Always lift the spring assist cover before activating the tilt mechanism.
4. During an electrical power interruption, turn Power Switch to the OFF position. This unit cannot be made to operate without electrical power.

CLEANING INSTRUCTIONS

CARE AND CLEANING

Cooking equipment must be cleaned regularly to maintain its fast, efficient cooking performance and to ensure its continued safe, reliable operation. The best time to clean is shortly after each use (allow unit to cool to a safe temperature).

WARNINGS

⇨

Chloride Cleaners

Do not use detergents or cleansers that are chloride based or contain quaternary salt.

⇨
Wire Brush &

Do not use a metal bristle brush or scraper.

⇨
Steel Pads

Steel wool should never be used for cleaning the stainless steel.

⇨
High Pressure Spray Hose

Unit should never be cleaned with a high pressure spray hose.

⇨
Stagnant Water

Do not leave water sitting in unit when not in use.

CLEANING INSTRUCTIONS

1. Turn unit off.
2. Remove drain screen (if applicable). Thoroughly wash and rinse the screen either in a sink or a dishwasher.
3. Prepare a warm water and mild detergent solution in the unit.
4. Remove food soil using a nylon brush.
5. Loosen food which is stuck by allowing it to soak at a low temperature setting.
6. Drain unit.
7. Rinse interior thoroughly.
8. If the unit is equipped with a Tangent Draw-Off Valve, clean as follows:
   - **a)** Disassemble the draw-off valve first by turning the valve knob counter-clockwise, then turning the large hex nut counter-clockwise until the valve stem is free of the valve body.
   - **b)** In a sink, wash and rinse the inside of the valve body using a nylon brush.
   - **c)** Use a nylon brush to clean tangent draw-off tube.
   - **d)** Rinse with fresh water.
   - **e)** Reassemble the draw-off valve by reversing the procedure for disassembly. The valve's hex nut should be hand tight only.
9. Using mild soapy water and a damp sponge, wash the exterior, rinse, and dry.

NOTES

⇨ For more difficult cleaning applications one of the following can be used: alcohol, baking soda, vinegar, or a solution of ammonia in water.

⇨ Leave the cover off when the kettle is not in use.

⇨ For more detailed instructions refer to the Nafem Stainless Steel Equipment Care and Cleaning manual (supplied with unit).

STAINLESS STEEL EQUIPMENT CARE AND CLEANING

(Suppied courtesy of Nafem. For more information visit their web site at www.nafem.org)

Contrary to popular belief, stainless steels ARE susceptible to rusting.

Corrosion on metals is everywhere. It is recognized quickly on iron and steel as unsightly yellow/orange rust. Such metals are called "active" because they actively corrode in a natural environment when their atoms combine with oxygen to form rust.

Stainless steels are passive metals because they contain other metals, like chromium, nickel and manganese that stabilize the atoms. 400 series stainless steels are called ferritic, contain chromium, and are magnetic; 300 series stainless steels are called austenitic, contain chromium and nickel; and 200 series stainless, also austenitic, contains manganese, nitrogen and carbon. Austenitic types of stainless are not magnetic, and generally provide greater resistance to corrosion than ferritic types.

With 12-30 percent chromium, an invisible passive film covers the steel's surface acting as a shield against corrosion. As long as the film is intact and not broken or contaminated, the metal is passive and stain-less. If the passive film of stainless steel has been broken, equipment starts to corrode. At its end, it rusts.

Enemies of Stainless Steel

There are three basic things which can break down stainless steel's passivity layer and allow corrosion to occur.

1. Mechanical abrasion
2. Deposits and water
3. Chlorides

Mechanical abrasion means those things that will scratch a steel surface. Steel pads, wire brushes and scrapers are prime examples.

Water comes out of the faucet in varying degrees of hardness. Depending on what part of the country you live in, you may have hard or soft water. Hard water may leave spots, and when heated leave deposits behind that if left to sit, will break down the passive layer and rust stainless steel. Other deposits from food preparation and service must be properly removed.

Chlorides are found nearly everywhere. They are in water, food and table salt. One of the worst chloride perpetrators can come from household and industrial cleaners.

So what does all this mean? Don't Despair!

Here are a few steps that can help prevent stainless steel rust.

1. *Use the proper tools.*

   When cleaning stainless steel products, use non-abrasive tools. Soft cloths and plastic scouring pads will not harm steel's passive layer. Stainless steel pads also can be used but the scrubbing motion must be in the direction of the manufacturers' polishing marks.

2. *Clean with the polish lines.*

   Some stainless steel comes with visible polishing lines or "grain." When visible lines are present, always scrub in a motion parallel to the lines. When the grain cannot be seen, play it safe and use a soft cloth or plastic scouring pad.

3. *Use alkaline, alkaline chlorinated or non-chloride containing cleaners.*

   While many traditional cleaners are loaded with chlorides, the industry is providing an ever-increasing choice of non-chloride cleaners. If you are not sure of chloride content in the cleaner used, contact your cleaner supplier. If your present cleaner contains chlorides, ask your supplier if they have an alternative. Avoid cleaners containing quaternary salts; it also can attack stainless steel and cause pitting and rusting.

4. *Treat your water.*

   Though this is not always practical, softening hard water can do much to reduce deposits. There are certain filters that can be installed to remove distasteful and corrosive elements. To insure proper water treatment, call a treatment specialist.

5. *Keep your food equipment clean.*

   Use alkaline, alkaline chlorinated or non-chloride cleaners at recommended strength. Clean frequently to avoid build-up of hard, stubborn stains. If you boil water in stainless steel equipment, remember the single most likely cause of damage is chlorides in the water. Heating cleaners that contain chlorides have a similar effect.

6. *Rinse, rinse, rinse.*

   If chlorinated cleaners are used, rinse and wipe equipment and supplies dry immediately. The sooner you wipe off standing water, especially when it contains cleaning agents, the better. After wiping equipment down, allow it to air dry; oxygen helps maintain the stainless steel's passivity film.

7. *Never use hydrochloric acid (muriatic acid) on stainless steel.*
8. *Regularly restore/passivate stainless steel.*

Recommended cleaners for specific situations

Job	Cleaning Agent	Comments
Routine cleaning	Soap, ammonia, detergent, Medallion	Apply with cloth or sponge
Fingerprints & smears	Arcal 20, Lac-O-Nu Ecoshine	Provides barrier film
Stubborn stains & discoloration	Cameo, Talc, Zud, First Impression	Rub in direction of polish lines
Grease & fatty acids, blood, burnt-on-foods	Easy-off, De-Grease It Oven Aid	Excellent removal on all finishes
Grease & oil	Any good commercial detergent	Apply with sponge or cloth
Restoration/Passivation	Benefit, Super Sheen	

Review

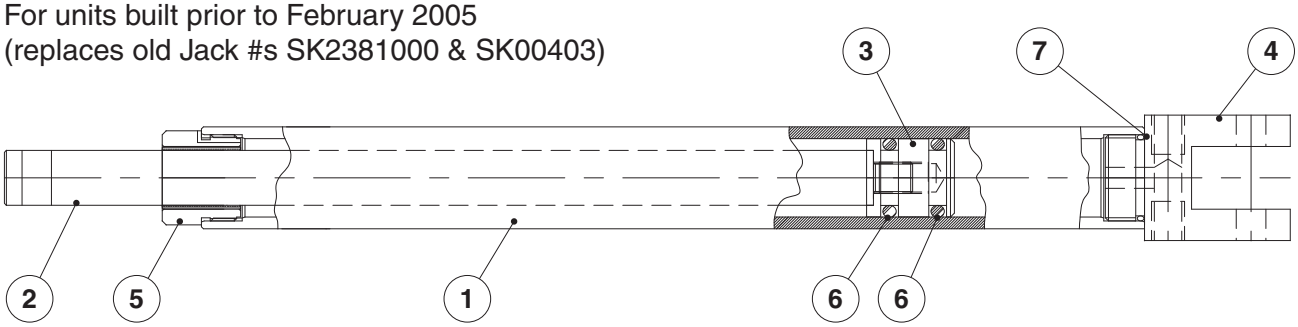
1. Stainless steels rust when passivity (film-shield) breaks down as a result of scrapes, scratches, deposits and chlorides.
2. Stainless steel rust starts with pits and cracks.
3. Use the proper tools. Do not use steel pads, wire brushes or scrapers to clean stainless steel.
4. Use non-chlorinated cleaners at recommended concentrations. Use only chloride- free cleaners.
5. Soften your water. Use filters and softeners whenever possible.
6. Wipe off cleaning agent(s) and standing water as soon as possible. Prolonged contact causes eventual problems.

To learn more about chloride-stress corrosion and how to prevent it, contact the equipment manufacturer or cleaning materials supplier.

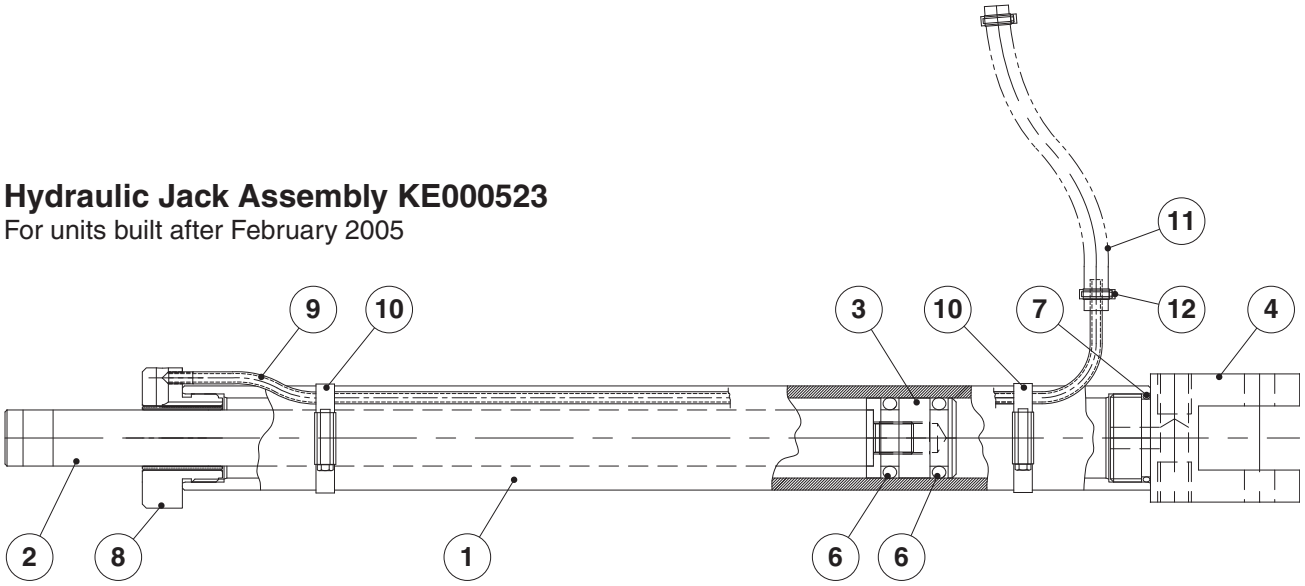
Developed by Packer Engineering, Naperville, Ill., an independent testing laboratory.

HYDRAULIC JACK ASSEMBLIES

Hydraulic Jack Assembly KE000772
For units built prior to February 2005
(replaces old Jack #s SK2381000 & SK00403)

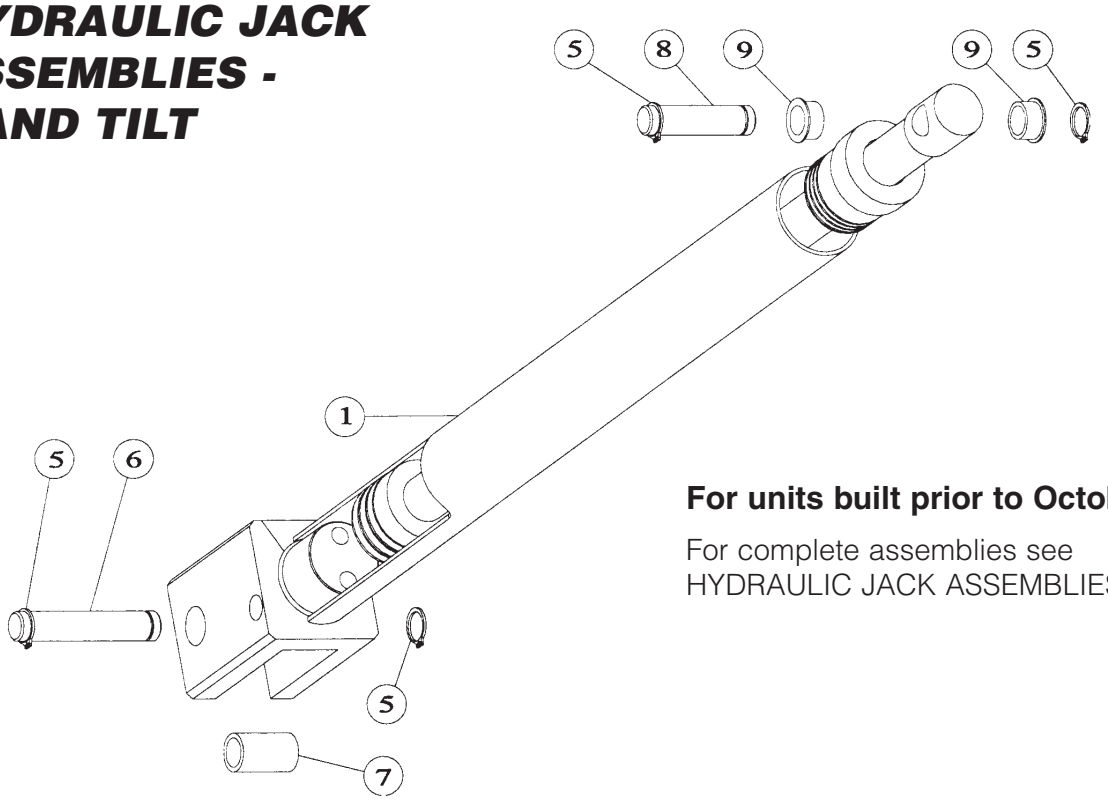


Hydraulic Jack Assembly KE000523
For units built after February 2005



ITEM NO.	*PART NO.*	*DESCRIPTION*	*QTY.*
1	KE600526	HYDRAULIC CYLINDER	1
2	KE600527	PUSH ROD	1
3	KE600528	HYDRAULIC PISTON	1
4	KE600529	FORK, HYDRAULIC JACK	1
5	KE000771	GUIDE BUSHING ASSEMBLY	1
6	FA05002-41	O RING, 7/8 I.D. X 1 1/4 O.D.	2
7	FA05002-40	O RING, 1 3/16 I.D. X 1 3/8 O.D.	1
8	KE000525	GUIDE BUSHING ASSEMBLY	1
9	KE600667	DRAIN TUBE	1
10	F105220-4	HOSE CLAMP	2
11	KE600668	DRAIN HOSE	1
12	F105220-1	HOSE CLAMP	2

HYDRAULIC JACK ASSEMBLIES - HAND TILT



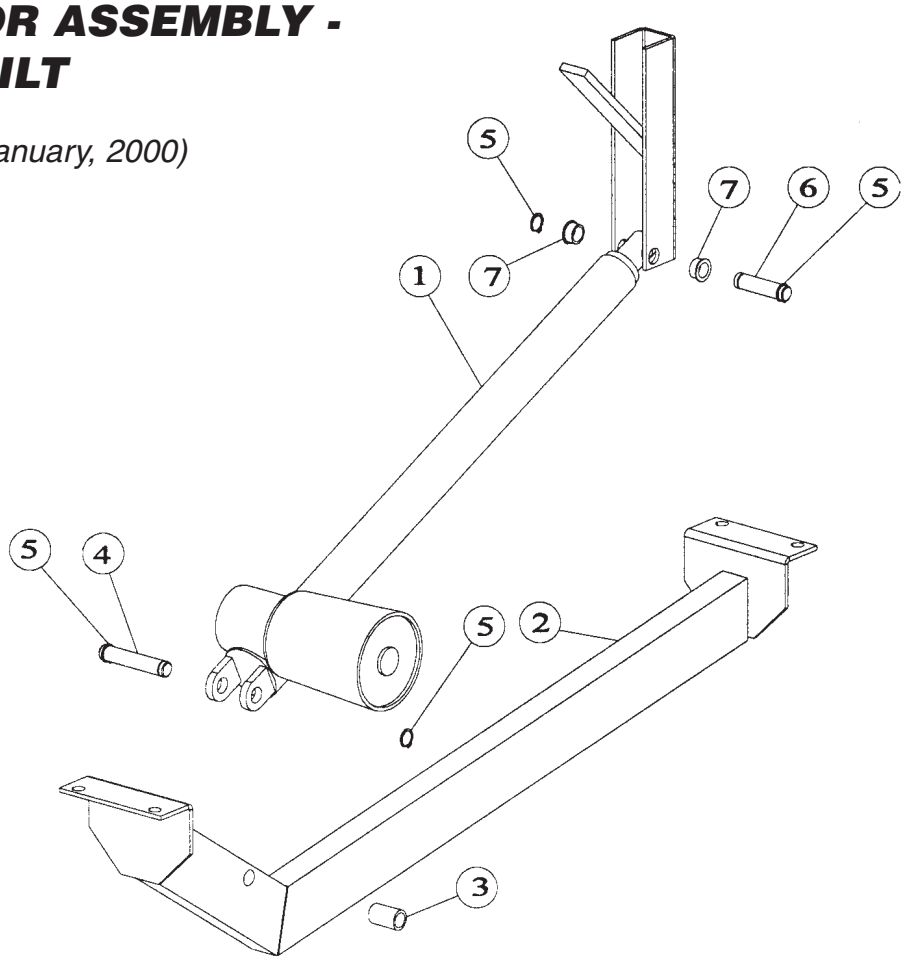
For units built prior to October 2001

For complete assemblies see HYDRAULIC JACK ASSEMBLIES.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	2381000	HYDRAULIC JACK ASSEMBLY	1
		(NO LONGER AVAILABLE, USE KE000772)	
5	FA95007-7	RETAINING RING	4
6	2376503	ACTUATOR PIN (FRONT)	1
7	2357500	SLEEVE BEARING	1
8	2376504	ACTUATOR PIN (REAR)	1
9	FA30505-3	WASHER	2

ACTUATOR ASSEMBLY - POWER TILT

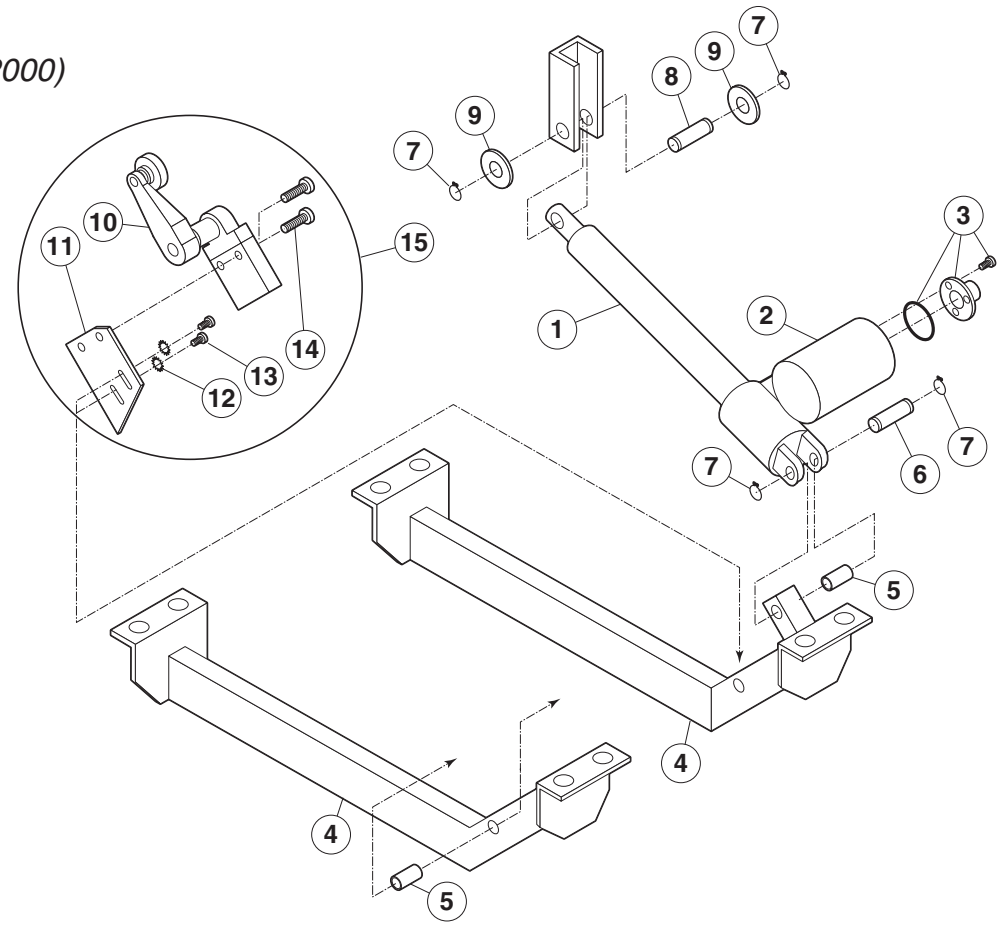
(used prior to January, 2000)



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	SK2346100	ACTUATOR	1
2.	SK2337499	ACTUATOR MOUNTING BRACKET ASSY.	1
3.	SK2357600	SLEAVE BEARING	1
4.	SK2376503	ACUATOR PIN, FRONT	1
5.	FA95007-7	RETAINING RING	1
6.	SK2376504	ACTUATOR PIN, REAR	1
7.	obsolete no replacement (no longer used)	FLANGE BEARING	2

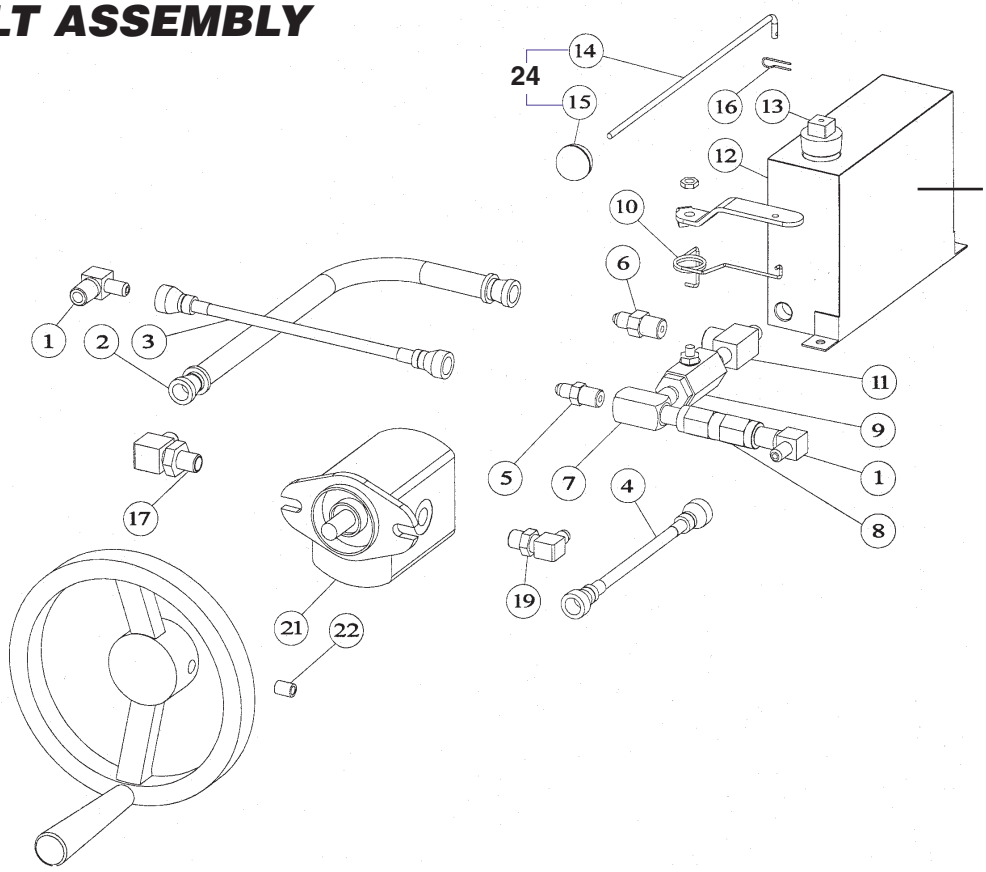
ACTUATOR ASSEMBLY - POWER TILT

(used after January, 2000)



ITEM NO.	*PART NO.*	*DESCRIPTION*	*QTY.*
1.	SK2346100	ACTUATOR ASSY., COMPLETE WITH ITEM 2	1
	KE003242	ACTUATOR ASSY., WITH MANUAL OVERRIDE, COMPLETE WITH ITEMS 2 & 3	1
2.	SK2346100-1	MOTOR	1
	SK2346101-1	MOTOR, WITH MANUAL OVERRIDE	1
3.	KE603205	COVER	1
	FA11091	SCREWS, SS, 8-32 X 3/8	3
	FA05002-54	O-RING	1
4.	SK2337499	MOUNTING BRACKET, WITHOUT TANGENT DRAW-OFF VALVE ON PAN	1
	SK00352	MOUNTING BRACKET, WITH TANGENT DRAW-OFF VALVE ON PAN	1
5.	SK2357500	SLEEVE BEARING	1
6.	SK2376503	ACTUATOR PIN, LONG	1
7.	FA95007-7	RETAINING RING	4
8.	SK2376504	ACTUATOR PIN, SHORT	1
9.	FA30505-3	WASHER	2
10.	KE601979	LIMIT SWITCH	1
11.	KE601960	BRACKET, LIMIT SWITCH, WITHOUT TANGENT DRAW-OFF VALVE ON PAN	1
	KE602198	BRACKET, LIMIT SWITCH, WITH TANGENT DRAW-OFF VALVE ON PAN	1
12.	FA32005	LOCKWASHER, #8	2
13.	F10	SCREW, #8-32X3/8	2
14.	F12	SCREW, #10-24X1/2	2
15.	KE002226	KIT FOR UNITS BUILT PRIOR TO MARCH 2006	1

HYDRAULIC TILT ASSEMBLY



New

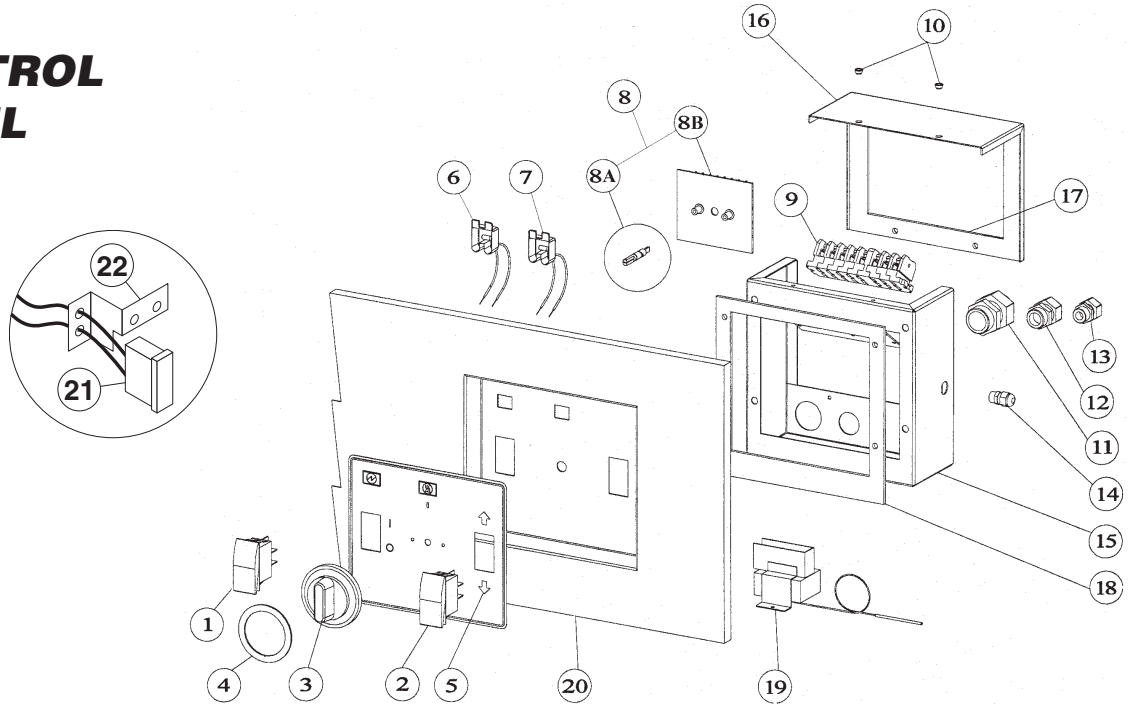
(added February 2005)

KE600452 (Strainer)
FI00351 (Bushing)
FI05318-1 (Elbow, hose barb)

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	2379100	HYDRAULIC ADAPTOR	2
2	2379600	HYDRAULIC HOSE ASSY	1
3	2379501	HYDRAULIC HOSE ASSY	1
4	2379500	HYDRAULIC HOSE ASSY, 8” LONG	1
5	2379000	HYDRAULIC ADAPTOR	1
6	2379001	HYDRAULIC ADAPTOR	1
7	2378901	TEE F/M/M	1
8	2379400	CHECK VALVE	1
9	2379301	BALL VALVE C/W HANDLE AND NUT	1
10	2382700	VALVE RETURN SPRING	1
11	2378900	TEE M/F/M	1
12	2375699	OIL TANK ASSY	1
13	2250700	PLUG (DRILLED)	1
14	2376200	LINK ROD	1
15	078279-1	BALL KNOB	1
16	FA95079	PUSH-ON FASTENER	1
17	FI05059	1/2" TO 3/8	1
19	2379200	ELBOW WITH O-RING 3/8 TO 1/4"	1
21		HYDRAULIC PUMP	
	SK2378800	USED PRIOR TO JANUARY 2002	1
	SK2378801	USED BETWEEN JANUARY 2002 & FEBRUARY 2005	1
	SK2378800	USED AFTER FEBRUARY 2005	1
22	KE00508-1	HANDWHEEL ASSY	1
23	FA19505	SET SCREW 3/8-24 X 3/8 LONG	1

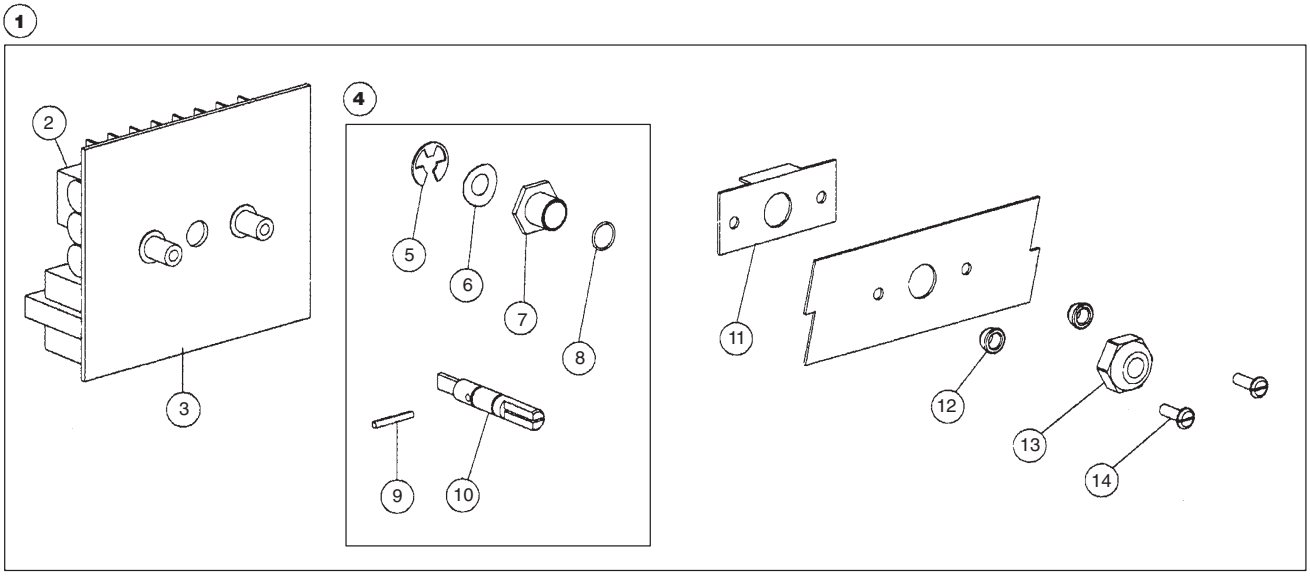
24	SE00128

CONTROL PANEL



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	2474101	POWER SWITCH (240V, USED AFTER FEBRUARY 2001)	1
	2474100	POWER SWITCH (USED AFTER FEBRUARY 2001)	1
	2343500	POWER SWITCH (USED PRIOR TO FEBRUARY 2001)	1
2	2343502	TILT SWITCH (POWER TILT ONLY, USED AFTER FEBRUARY 2001)	1
	2343501	TILT SWITCH (POWER TILT ONLY, USED PRIOR TO FEBRUARY 2001)	1
	SK2533199	FUSE, POLYSWITCH ASSY.	1
3	2138700	DIAL KNOB	1
4	2360701	DIAL INSERT °C	1
	2360700	DIAL INSERT °F	1
5	KE95586-1	LABEL, CLEVELAND, MANUAL TILT	1
	KE95586-2	LABEL, CLEVELAND, POWER TILT	1
	KE95586-3	LABEL, GARLAND, MANUAL TILT	1
	KE95586-4	LABEL, GARLAND, POWER TILT	1
6	2356100	INDICATOR LIGHT, GREEN, USED PRIOR TO FEB. 2001 (ORDER SERVICE PART # SE00121)	1
7	2356102	INDICATOR LIGHT, AMBER, USED PRIOR TO FEB. 2001 (ORDER SERVICE PART # SE00131	1
8	SE00119	ELECTRONIC THERMOSTAT KIT (INCLUDES 8A & 8B)	1
8A	2142002	ELECTRONIC THERMOSTAT	1
8B	2498399	SHAFT ASSY.	1
9	SK50872-1	TERMINAL BLOCK	18
	SK50872-2	TERMINAL END	3
10	F33	SEALER WASHER	4
11	2147403	LIQUID-TIGHT FITTING 5/8"	1
12	2147402	LIQUID-TIGHT FITTING 3/8"	1
13	2147401	LIQUID-TIGHT FITTING 5/16" (POWER TILT ONLY)	1
14	2147400	LIQUID-TIGHT FITTING 3/16"	1
15	2352898	CONTROL BOX ASSY.	1
16	2353100	CONTROL BOX COVER	1
17	2383200	CONTROL COVER GASKET	1
18	2357900	NEOPRENE GASKET	1
19	KE55069-7	HIGH LIMIT	1
20	SK00383-1	CONTROL PANEL, POWER TILT, 40-TR	1
	SK00383-2	CONTROL PANEL, POWER TILT, 30-TR	
	SK00383-3	CONTROL PANEL, MANUAL TILT, 40-TR	1
	SK00383-4	CONTROL PANEL, MANUAL TILT, 30-TR	1
21	SK50905-1	INDICATOR LIGHT, USED AFTER FEB, 2001 (GAS MODELS)	1
	SK50905-2	INDICATOR LIGHT, USED AFTER FEB, 2001 (ELECTRIC MODELS)	1
22	SK50903	BRACKET, USED AFTER FEB, 2001	1

SHAFT ASSEMBLY



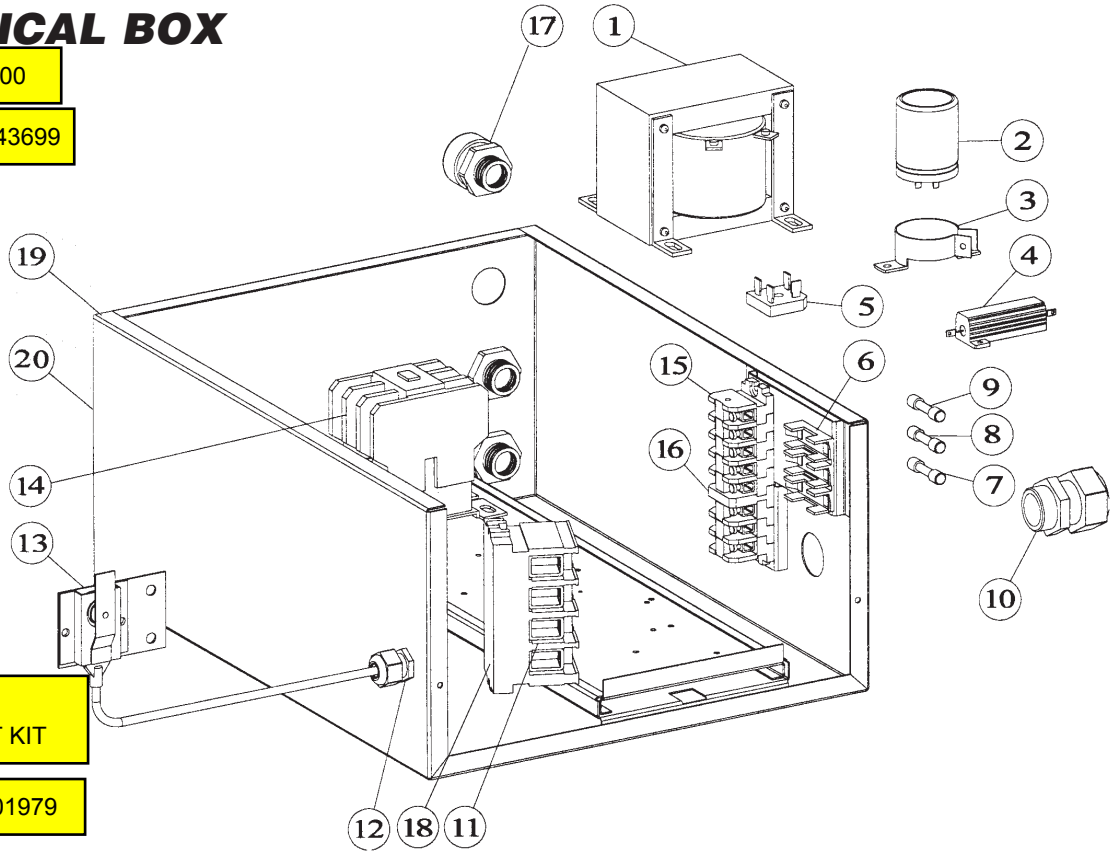
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	SE00119	THERMOSTAT BOARD ASSEMBLY (INCLUDES 2 - 14)	1
2.	SK2142002	TEMPERATURE SENSOR BOARD	1
3.	SK2159300	INSULATOR, THERMOSTAT	1
4.	SK2498399	POTENTIOMETER SHAFT ASSEMBLY (INCLUDES 5-10)	1
5.	SK2167200	RETAINING RING, SP-NR #R1000-25	1
6.	SK2167100	WASHER, BOWED/SPRING	1
7.	SK2167300	PANEL BEARING	1
8.	SK2382800	RETAINING RING CLIP	1
9.	SK2167000	TENSION PIN	1
10.	SK2166800	POTENTIOMETER SHAFT	1
11.	2491500	STOP PLATE ASSY.	1
12.	F33	SEALER WASHER	2
13.	KE51005	ROTARY SHAFT SEAL	1
14.	FA11054	SCREW 6-32 X 3/8	2

ELECTRICAL BOX

Component Box Cover 2343900

Component box assembly 2343699

Igniton cable SE50450



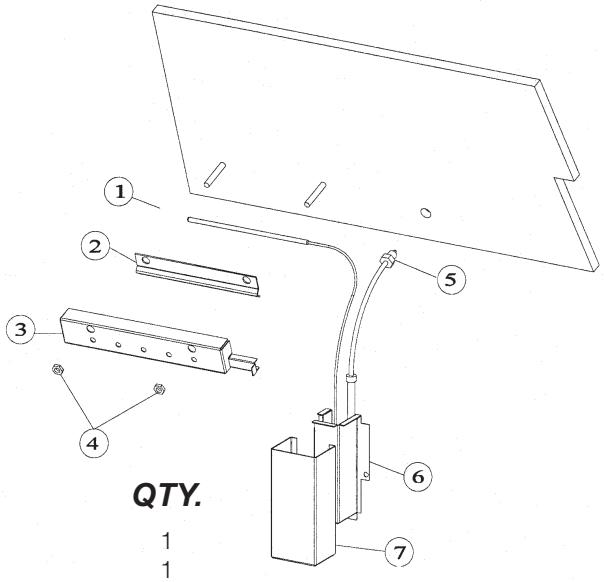
KE002226
REPLACEMENT KIT

Switch only KE601979

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	KE53838-31	TRANSFORMER - POWER TILT 208 - 480V PT	1
	KE53838-30	TRANSFORMER - POWER TILT 220 - 415V PT	1
	KE53838-33	TRANSFORMER - HAND TILT 208 - 480V MT	1
	KE53838-15	TRANSFORMER - HAND TILT 220 - 415V MT	1
2	1427305	CAPACITOR (POWER TILT ONLY)	1
3	2282100	CAPACITOR CLAMP (POWER TILT ONLY)	1
4	1426600	RESISTOR (POWER TILT ONLY)	1
5	KE50581	RECTIFIER (POWER TILT ONLY)	1
6	2320702	FUSE HOLDER	1
7	KE52936-10	FUSE 1.5A/250V	1
	KE52936-11	FUSE 0.5A/250V	1
8	KE52936-13	FUSE 1A AGC (POWER & HAND TILT)	1
9	KE52936-9	FUSE 15A MDA (POWER TILT ONLY)	1
10	2147403	LIQUID-TIGHT FITTING 5/8"	1
11	KE50377	TERMINAL BLOCK	3
	KE50376	TERMINAL END	1
	G01280-3-7	TERMINAL CHANNEL - 3 BLOCKS	1
12	2147401	LIQUID-TIGHT FITTING 5/16"	1
13	2348100	INTERRUPTER SWITCH	1
14	KE50750-7	CONTACTOR 3 POLE	2
15	SK50872-1	TERMINAL BLOCK - JUNCTION	15
		TERMINAL BLOCK - LINE	2
16	SK50872-2	TERMINAL END	1
17	SK50399	1/2" LIQUID-TIGHT CONNECTOR STRAIGHT	3
18	SK2347300	TERMINAL BLOCK SUPPORT	1
19	SK2383400	COVER GASKET	1
20	SK2372099	SERVICE BOX ASSY.	1

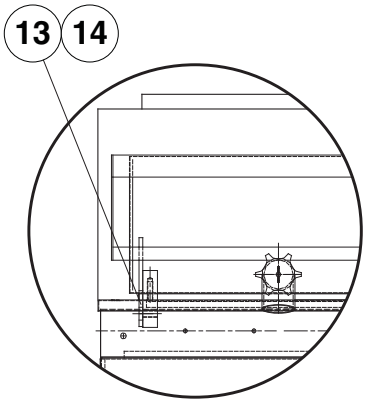
PLATE ASSEMBLY

(used prior to January, 2000)

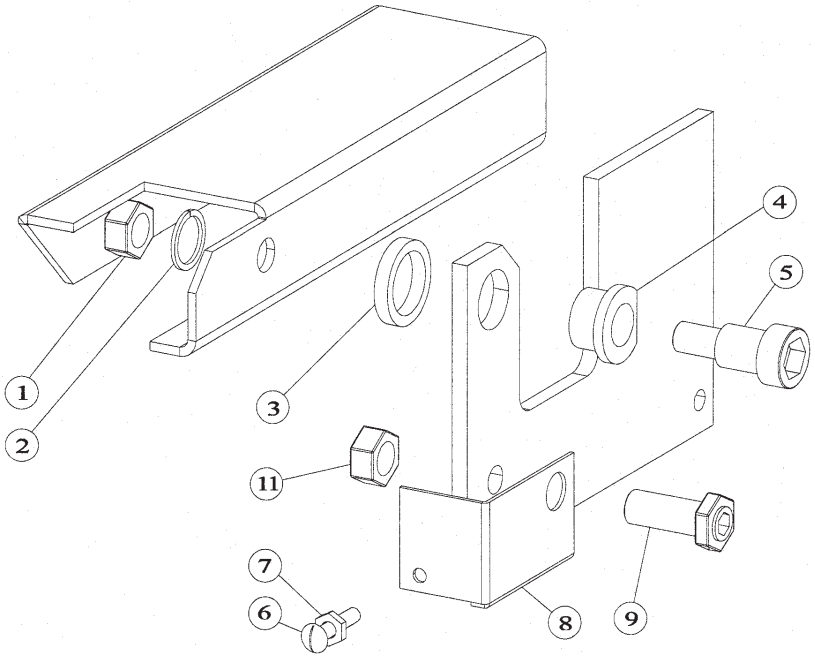


ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	KE55069-7	HI-LIMIT	1
2	2353900	BULB CLAMP	1
3	2354099	BULB SHIELD ASSY	1
4	F95	NUT	1
5	2345100	RTD SENSOR	1
6	2344900	SHIELD LINER	1
7	2345000	SHIELD	1

PAN HINGE

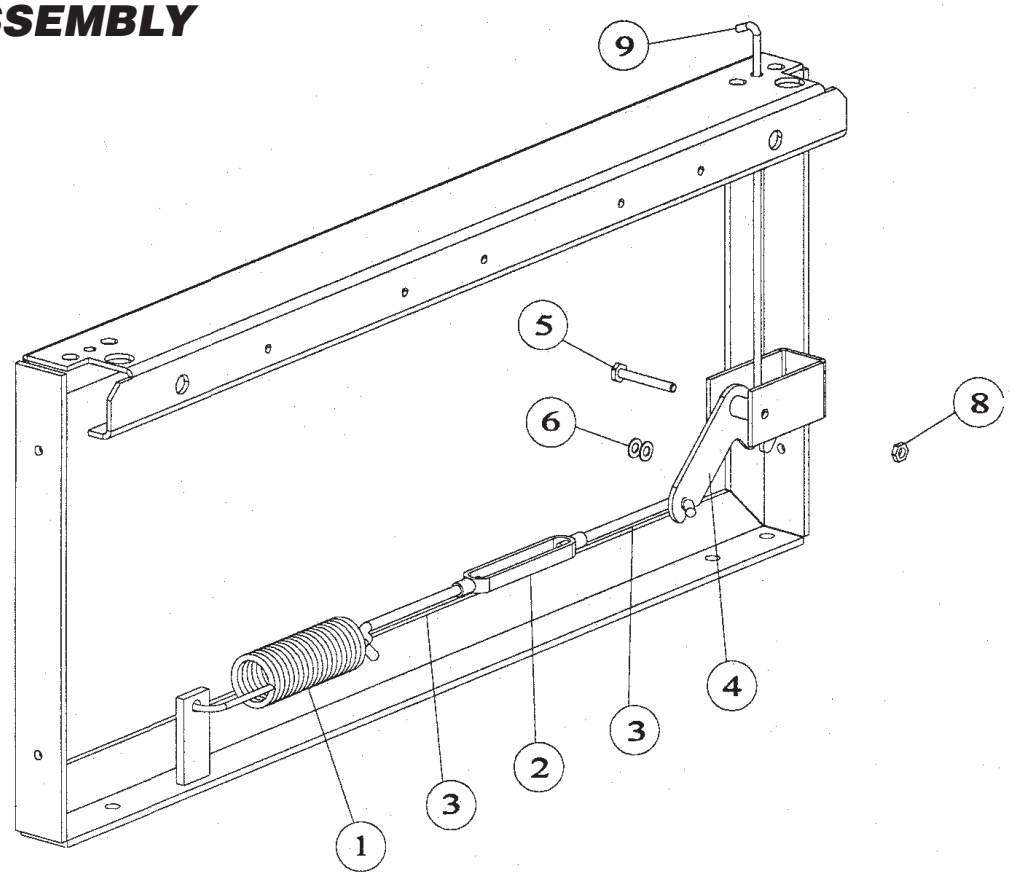


For units with TD Valve



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	FA21053	LOCK NUT 1/2-13 S.S.	2
2	FA30505-3	LOCK WASHER 1/2-13 S.S.	2
3	078248-1	SPACER	2
4	G02925-2	BUSHING	2
5	FA15015	BOLT 1/2-13 X 3/4"	2
6	FA10245	TRUSS HEAD SCREW 8-32 X 1 S.S.	1
7	FA21004	HEX NUT 8-32 S.S.	1
8	2354199	STRIKER PLATE ASSY	1
9	FA11224	HEX BOLT, 5/16-18 X 1" LONG	1
11	FA21024	HEX NUT 1/2-13 S.S.	1
13	FA15019-2	SHOULDER BOLT, 1/2-13 (303)	2
14	SK50813	BEARING HINGE	2

SPRING ASSEMBLY

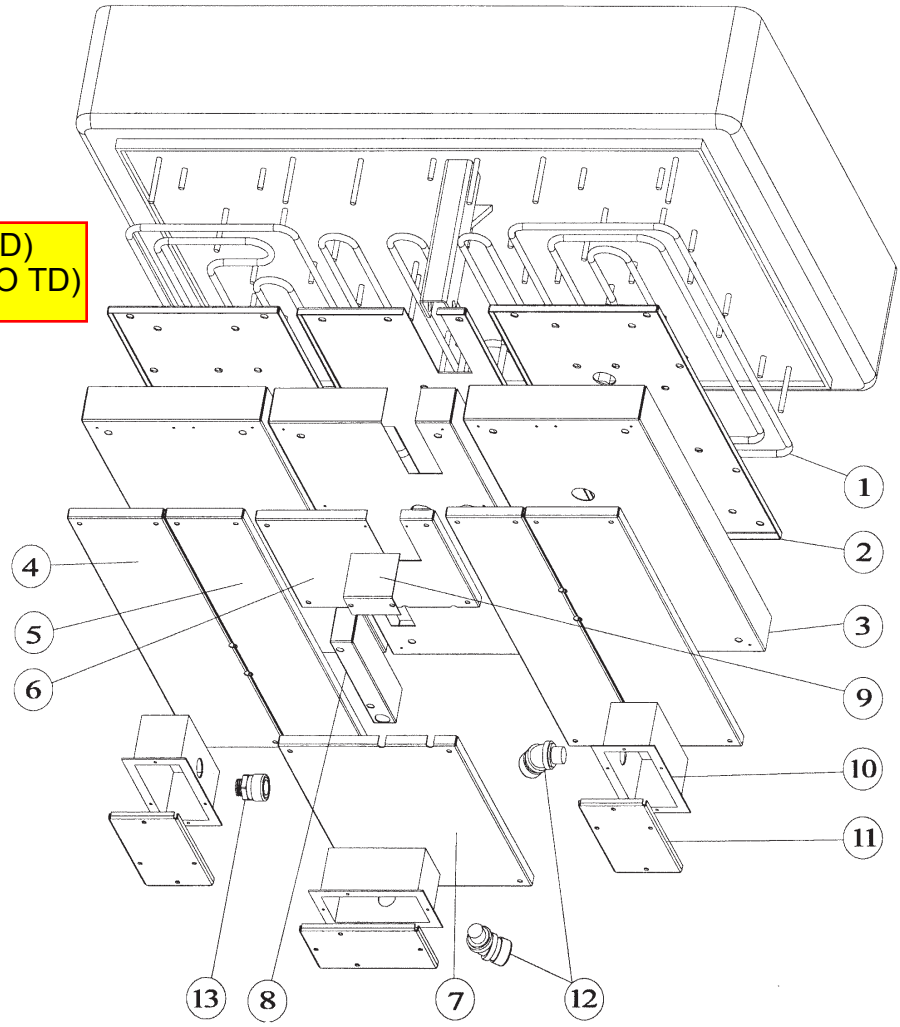


ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	2452300	SPRING	2
2	2381700	TURNBUCKLE BODY	2
3	2374900	CONNECTING ROD R/H THREAD	2
	2374901	CONNECTING ROD L/H THREAD	2
4	2529499	BELL CRANK ASSY	2
5	1082200	BOLT, 9/16-18 X 1-5/16 SHOULDER	2
6	F112	FLAT WASHER 3/8" I.D.	4
8	FA20500	NUT, 9/16-18, S.S.	2
9	2372400	BELL CRANK HOOK	2

PAN

(used prior to January, 2000)

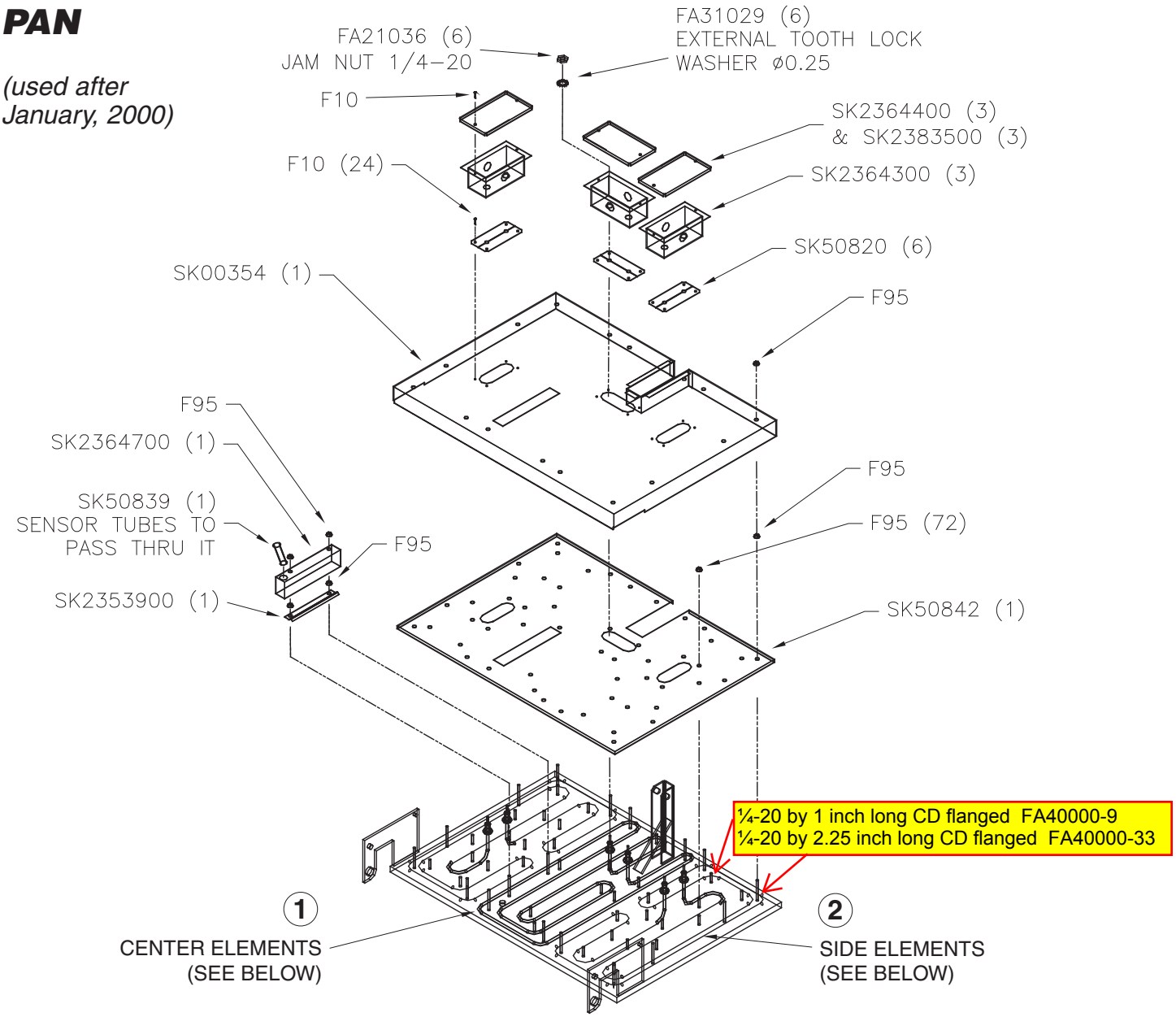
SK00344-2 PAN WLDT SEL40TR (TD)
SK00344-1 PAN WLDT SEL40TR (NO TD)



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	23563	ELEMENT - CENTRE 4.8KW (SPECIFY VOLTAGE), 30 GAL.	1
	23730	ELEMENT - SIDE 4.8KW (SPECIFY VOLTAGE) 30 GAL.	2
	23562	ELEMENT - CENTRE 6.OKW (SPECIFY VOLTAGE) 40 GAL.	1
	23729	ELEMENT - SIDE 6.OKW (SPECIFY VOLTAGE) 40 GAL.	2
2	2364101	ELEMENT CLAMP - CENTRE 30 GAL.	1
	2364100	ELEMENT CLAMP - SIDE 30 GAL.	2
	2360301	ELEMENT CLAMP - CENTRE 40 GAL.	1
	2360300	ELEMENT CLAMP - SIDE 40 GAL.	2
3	2364201	ELEMENT COVER - CENTRE 30 GAL.	1
	2364200	ELEMENT COVER - SIDE 30 GAL.	2
	2360401	ELEMENT COVER - CENTRE 40 GAL.	1
	2360400	ELEMENT COVER - SIDE 40 GAL.	2
4	2382000	HEAT BAFFLE - OUTER 30 GAL.	2
	2381200	HEAT BAFFLE - OUTER 40 GAL.	2
5	2381900	HEAT BAFFLE - INNER 30 GAL.	2
	2381300	HEAT BAFFLE - INNER 40 GAL.	1
6	2382200	HEAT BAFFLE - CENTRE REAR 30 GAL.	1
	2381500	HEAT BAFFLE - CENTRE REAR 40 GAL.	2
7	2382100	HEAT BAFFLE - CENTRE FRONT 30 GAL.	2
	2381400	HEAT BAFFLE - CENTRE FRONT 40 GAL.	1
8	2364700	BULB SHIELD	1
9	2372200	ENCLOSURE COVER	1
10	2364300	ELEMENT TERMINAL BOX	3
11	2364400	TERMINAL BOX COVER	3
12	2274800	1/2" LIQUID-TIGHT CONNECTOR 45°	2
13	2274600	1/2" LIQUID-TIGHT CONNECTOR STRAIGHT	1

PAN

(used after January, 2000)



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	2356306	ELEMENT - CENTER, 4.8KW, 600V.	1
	2356305	ELEMENT - CENTER, 4.8KW, 480V.	1
	2356304	ELEMENT - CENTER, 4.8KW, 415V.	1
	2356303	ELEMENT - CENTER, 4.8KW, 380V.	1
	2356302	ELEMENT - CENTER, 4.8KW, 240V.	1
	2356301	ELEMENT - CENTER, 4.8KW, 220V.	1
	2356300	ELEMENT - CENTER, 4.8KW, 208V.	1
2.	2373006	ELEMENT - SIDE, 4.8KW, 600V.	2
	2373005	ELEMENT - SIDE, 4.8KW, 480V.	2
	2373004	ELEMENT - SIDE, 4.8KW, 415V.	2
	2373003	ELEMENT - SIDE, 4.8KW, 380V.	2
	2373002	ELEMENT - SIDE, 4.8KW, 240V.	2
	2373001	ELEMENT - SIDE, 4.8KW, 220V.	2
	2373000	ELEMENT - SIDE, 4.8KW, 208V.	2

MAINTENANCE

NOTE: ANY MAINTENANCE OR SERVICE INVOLVING DISSASSEMBLY OF COMPONENTS SHOULD BE MADE BY A QUALIFIED SERVICE TECHNICIAN. ENSURE GAS, ELECTRICAL AND WATER SUPPLY (IF APPLICABLE) TO THE APPLIANCE ARE SHUT OFF

You have purchased the finest commercial cooking equipment available anywhere. Like any other fine, precision built piece of equipment it should be given regular care and maintenance.

Periodic inspections by your dealer or a qualified service agency are recommended to check temperatures, adjustments and ensure moving parts are operative. Whenever possible, avoid overheating idle equipment as this us the primary cause for increased service costs.

When corresponding with the factory or your equipment dealer regarding service problems or replacement parts, be sure to refer to the particular unit by the correct model number (including prefix and suffix letters and numbers) and the serial or code 'number. The rating plate affixed to the unit contains this information.

"REGULAR MAINTENANCE ENSURES PEAK PERFORMANCE".

TILT MECHANISM LUBRICATION

The linear actuator (power tilt models), the hydraulic cylinder (manual tilt), and the bronze bushings are all self-lubricating and require no lubrication.

CALIBRATION INSTRUCTIONS

IMPORTANT: DO NOT ATTEMPT TO CALIBRATE THE THERMOSTAT

The electronic thermostat supplied with this skillet has been precisely calibrated at the factory and should not require field calibration.

SPARE PARTS LIST

ITEM ON.	*DESCRIPTION*	*QTY.*
KE55069-7	SAFETY THERMOSTAT	1
SK50905-2	LIGHT	1
KE52936-13	FUSE, 1 AMP	1
SK2498399	SHAFT ASSEMBLY, POTENTIOMETER	1
SK2474100	SWITCH	1
KE50750-7	CONTACTOR	2
SK077190-4	TRANSFORMER	1
SK2343502	SWITCH, POWER TILT	1
KE52936-9	FUSE, 15 AMP	1
SK2345100	THERMOSTAT SENSOR	1
SK2142002	SENSOR, RTD.	1

Statement of Responsibilities

This document is for use by experienced and trained Qualified Cleveland Range, LLC Authorized Service Representatives who are familiar with both the safety procedures, and equipment they service.

Cleveland Range, LLC assumes no liability for any death, injury, equipment damage, or property damage resulting from use of, improper use of, or failure to use the information contained in this document.

Cleveland Range, LLC has made every effort to provide accurate information in this document, but cannot guarantee that this document does not contain unintentional errors and omissions.

The information in this document may be subject to technical and technological changes, revisions, or updates.

Cleveland Range, LLC assumes no liability or responsibility regarding errata, changes, revisions, or updates.

Qualified Cleveland Range, LLC Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, OSHA regulations, and disconnect / lock out / tag out procedures for all utilities including steam, and disconnect / lock out / tag out procedures for gas, electric, and steam powered equipment and / or appliances

All utilities (gas, electric, water and steam) should be turned OFF to the equipment and locked out of operation according to OSHA approved practices during any servicing of Cleveland Range equipment

Qualified Cleveland Range, LLC Authorized Service Representatives are obligated to maintain up-to-date knowledge, skills, materials and equipment.

Cleveland

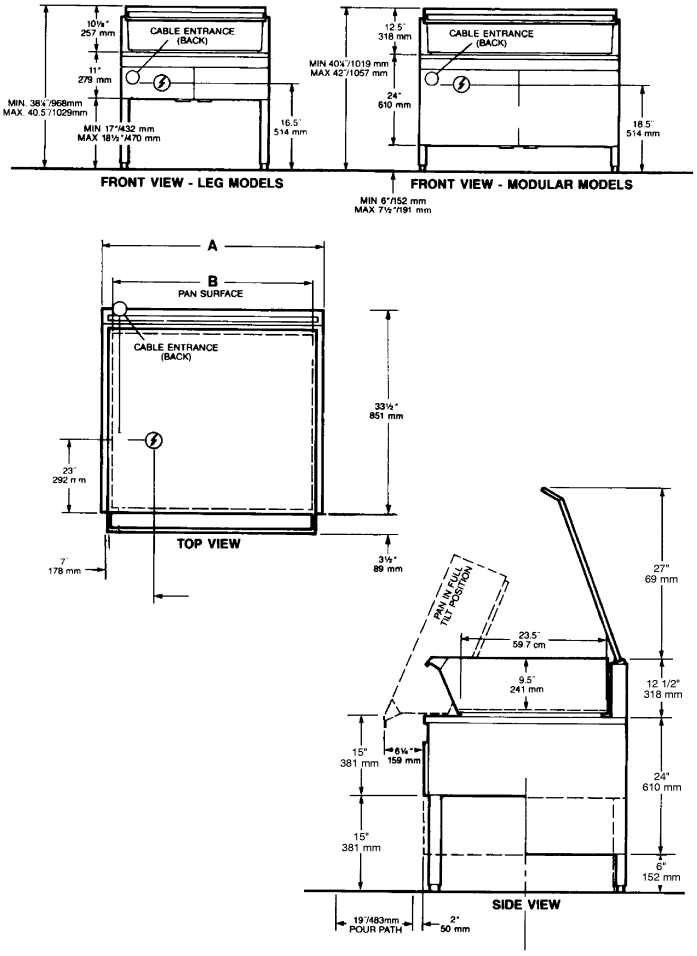
Tilting Skillets

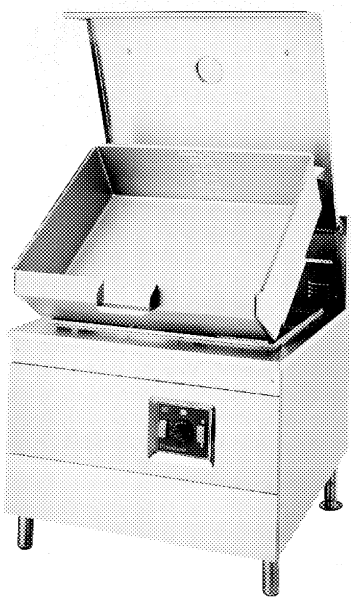
ELECTRIC TILTING OPEN BASE AND MODULAR SKILLETS

MODELS: ☐ SEL-30-TR ☐ SEM-30-TR
☐ SEL-40-TR ☐ SEM-40-TR

ITEM NUMBER _____

JOB NAME / NUMBER _____





Modular Cabinet Base Shown

SHORT FORM SPECIFICATION

Shall be CLEVELAND, Tilting Skillet; Model SE - ____ - TR ____ KW, ____ Volts holding no less than ____ Gallons; Complete with thermostatic and Safety Controls; Gallon Markings; Stainless Steel Clad; 5/8" Cooking Surface; Power Tilt; Spring Assist Cover with adjustable Vent. All Stainless Steel Construction. No Clearances Required.

MODEL	CAPACITY		DIMENSIONS				LOADING CHART								SERVICE CONNECTION
Basic No.	U.S. Gallons	Litres	A		B		Total kw. Load	3-Phase – 240V			3 Phase – 208V			Single Phase	
			in.	mm	in.	mm		X	Y	Z	X	Y	Z	240V	208V
SEL-30-TR SEM-30-TR	30	115	36	914	32	813	14.4	35	35	35	40	40	40	60	70
SEL-40-TR SEM-40-TR	40	150	48	1219	44	1118	18.0	43.5	43.5	43.5	50.00	50.0	50.0	75.0	87.0

Electric direct connection 3 wire nominal line

INSTALLATION NOTES

COMBUSTIBLE WALL CLEARANCES	ALL SIDES	
	in.	mm
	1	25

Cleveland Range reserves right of design improvement or modification, as warranted.

Cleveland Range, LLC
Ph: 1-216-481-4900 Fx: 1-216-481-3782
1333 East 179th St., Cleveland, Ohio, U.S.A. 44110
Visit our Web Site at **www.clevelandrange.com**

CLEVELAND RANGE SEL-R
SEQUENCE OF OPERATIONS

When using these instructions refer to the SEL-R wiring schematic.

1. Supply Voltage is sent to the normally open contacts of the element contactor

2. Supply Voltage is sent through the 1.5 amp fuse to the power switch

3. With the power switch in the on position, supply voltage is sent to the primary of the main transformer.

4. 120 VAC is sent from pins 1 and 2 on the secondary of the main transformer through the 1 amp fuse to the tilt interrupter switch.
   - If the skillet is in the down position 115 VAC is sent from the interrupter switch through the high limit to pin 9 on the thermostat.

5. When the thermostat is calling for heat 115 VAC is sent to the coil of the element contactor.
   - The normally open contacts of the element contactor close sending supply voltage to the elements.
   - The elements will heat the skillet until the thermostat is satisfied.

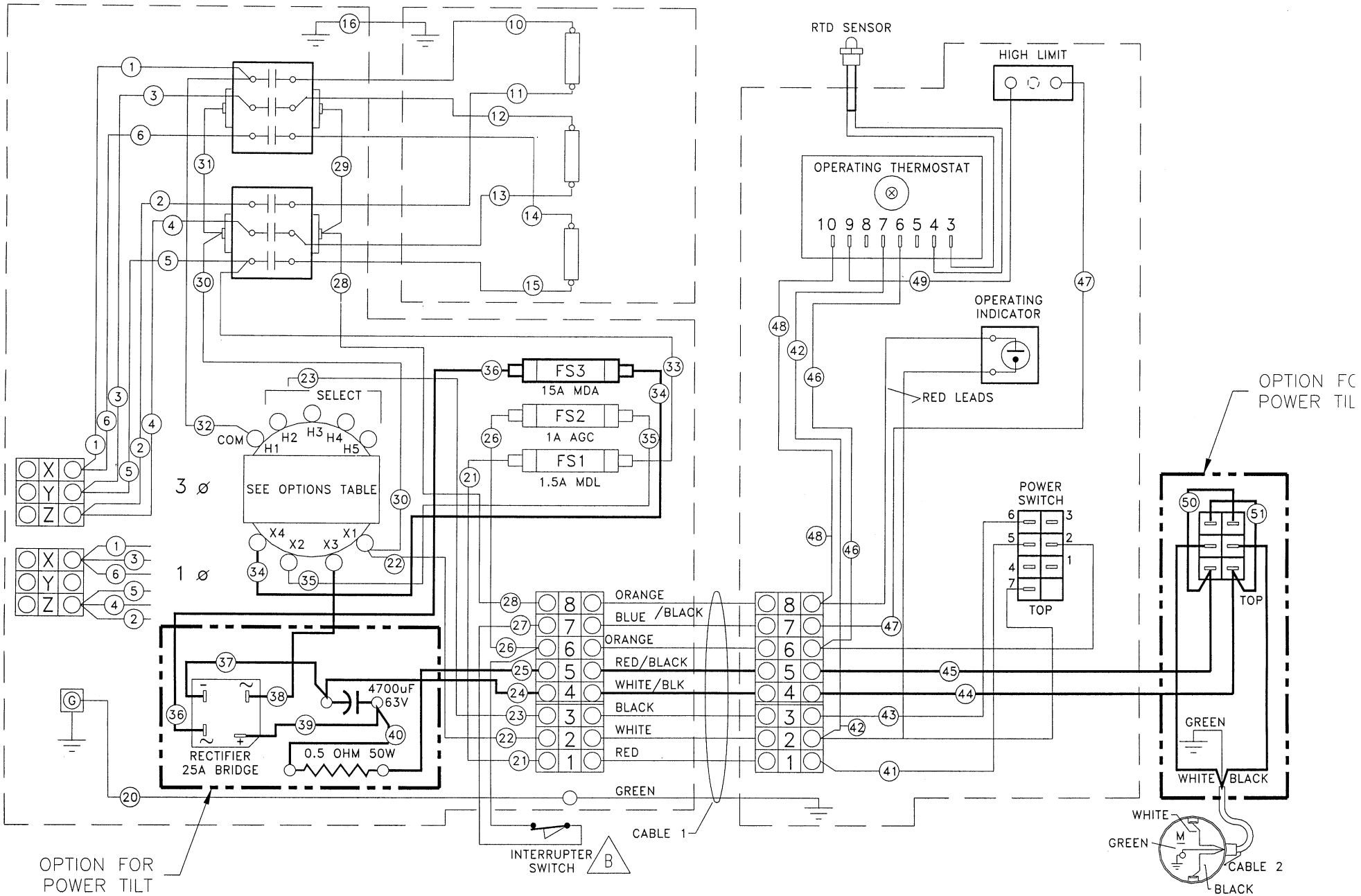
6. When the thermostat is satisfied 115VAC is removed from pin 10 and the heat circuit is de-energized.

7. If the skillet is equipped with the optional Power Tilt, 24 VAC is sent from terminals 3 and 4 of the secondary of the main transformer through the 15-amp fuse to the bridge rectifier

8. The AC current is rectified to DC voltage that is then filtered by the capacitor and resistor and sent to the tilt switch.

9. When the switch is in the up position the DC motor is energized and the actuator extends.

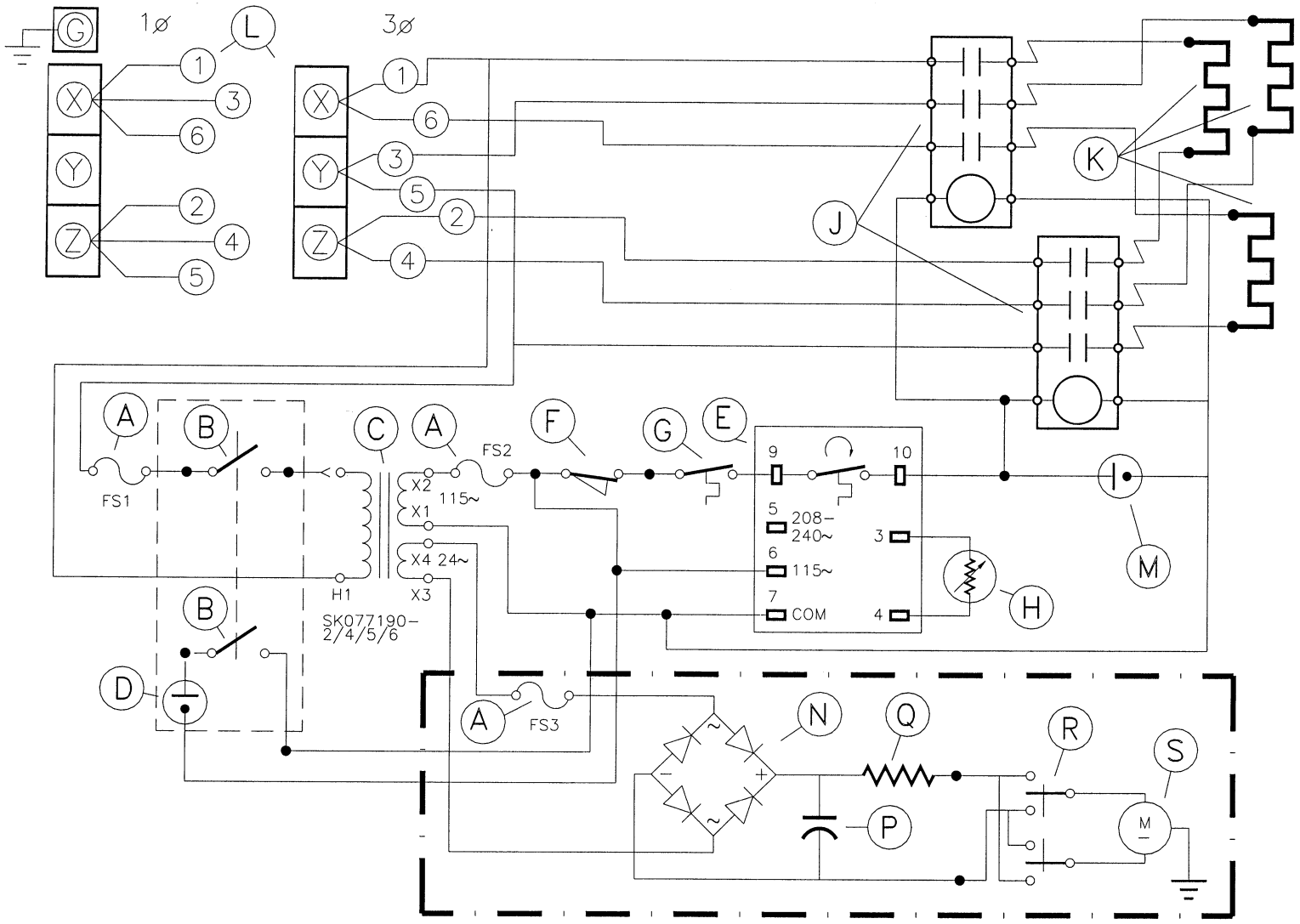
10. When the switch is in the down position the polarity is reversed and the motor is energized to retract the actuator.



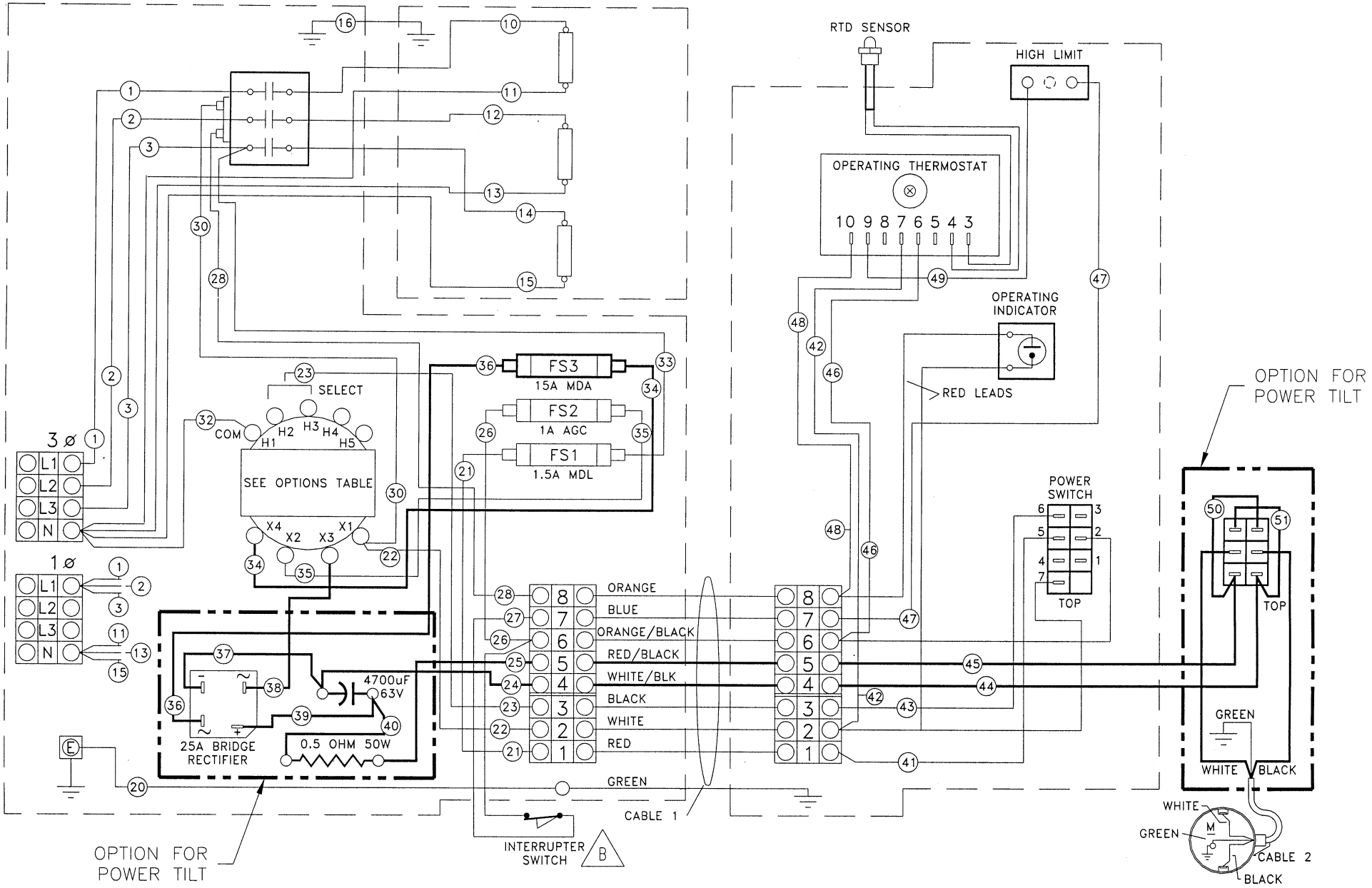
MODEL F30,40E-L,MR, SEL30,40TR 208/240/380/415/480V DELTA

SK90123-4

(208/240/380/415/480V 1ø/3ø)



A– FUSE
B– POWER SWITCH
C– TRANSFORMER
D– PILOT–RED
E– ELECTRONIC THERMOSTAT
F– INTERRUPTER SWITCH
G– HIGH LIMIT SWITCH
H– RTD SENSOR
J– CONTACTOR
K– ELEMENT
L– TERMINAL BLOCK
M– PILOT–YELLOW
N– RECTIFIER
P– CAPACITOR
Q– RESISTOR
R– TILT CONTROL
S– ACTUATOR
– – – POWER TILT ONLY

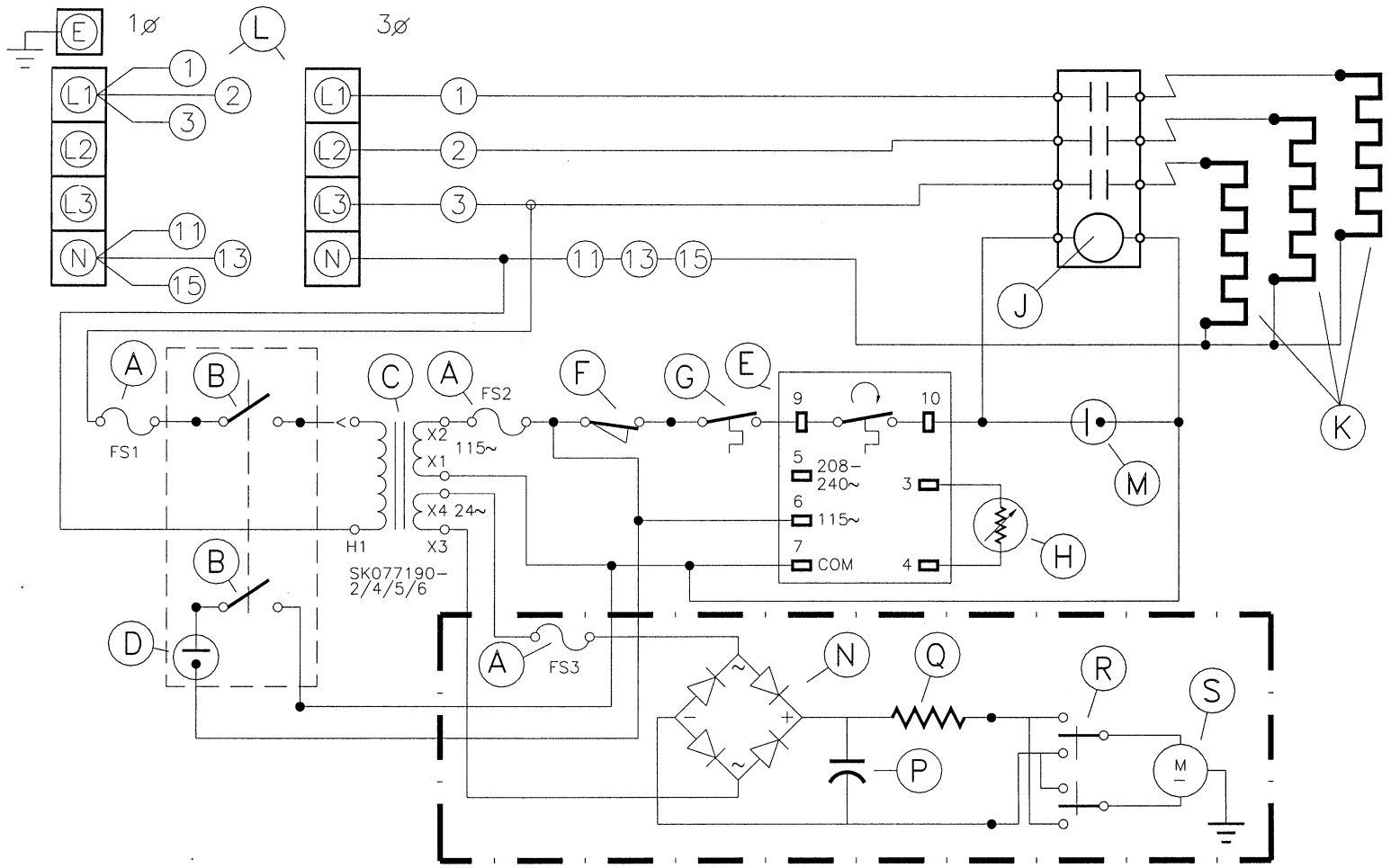


MODEL F30,40E-L,MR, SEL30,40TR 220/240V 3N~

SK90123-3

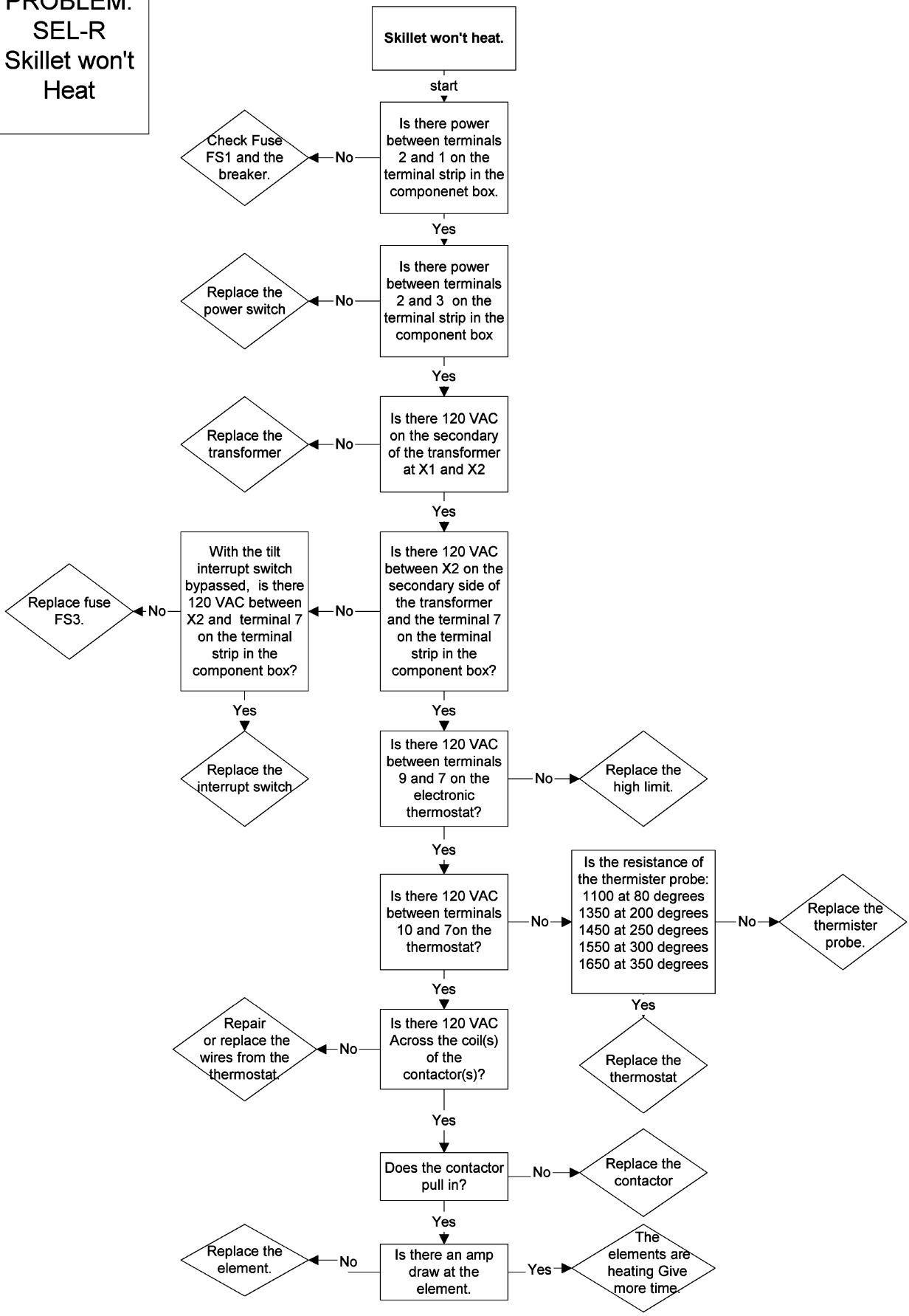
(220/380, 240/415 1[illegible] /3N~)

OPTIONS TABLE



A– FUSE
B– POWER SWITCH
C– TRANSFORMER
D– PILOT–RED
E– ELECTRONIC THERMOSTAT
F– INTERRUPTER SWITCH
G– HIGH LIMIT SWITCH
H– RTD SENSOR
J– CONTACTOR
K– ELEMENT
L– TERMINAL BLOCK
M– PILOT–YELLOW
N– RECTIFIER
P– CAPACITOR
Q– RESISTOR
R– TILT CONTROL
S– ACTUATOR
– - – POWER TILT ONLY

PROBLEM:
SEL-R
Skillet won't
Heat


Skillet won't heat.
start
Is there power between terminals 2 and 1 on the terminal strip in the componenet box.
No
Check Fuse FS1 and the breaker.
Yes
Is there power between terminals 2 and 3 on the terminal strip in the component box
No
Replace the power switch
Yes
Is there 120 VAC on the secondary of the transformer at X1 and X2
No
Replace the transformer
Yes
Is there 120 VAC between X2 on the secondary side of the transformer and the terminal 7 on the terminal strip in the component box?
No
With the tilt interrupt switch bypassed, is there 120 VAC between X2 and terminal 7 on the terminal strip in the component box?
No
Replace fuse FS3.
Yes
Replace the interrupt switch
Yes
Is there 120 VAC between terminals 9 and 7 on the electronic thermostat?
No
Replace the high limit.
Yes
Is there 120 VAC between terminals 10 and 7on the thermostat?
No
Is the resistance of the thermister probe:
1100 at 80 degrees
1350 at 200 degrees
1450 at 250 degrees
1550 at 300 degrees
1650 at 350 degrees
No
Replace the thermister probe.
Yes
Replace the thermostat
Yes
Is there 120 VAC Across the coil(s) of the contactor(s)?
No
Repair or replace the wires from the thermostat.
Yes
Does the contactor pull in?
No
Replace the contactor
Yes
Is there an amp draw at the element.
No
Replace the element.
Yes
The elements are heating Give more time.